

Fig 1 lists the Typical Minimum Acceptable Bit Error Rates.

Bit Error Rate and Error Correction Criteria:

Typical Minimum Acceptable Bit Error Rate

Video: 10^{-5} BER

Audio: 10^{-3} BER

Data: 10^{-10} BER

Fig 1

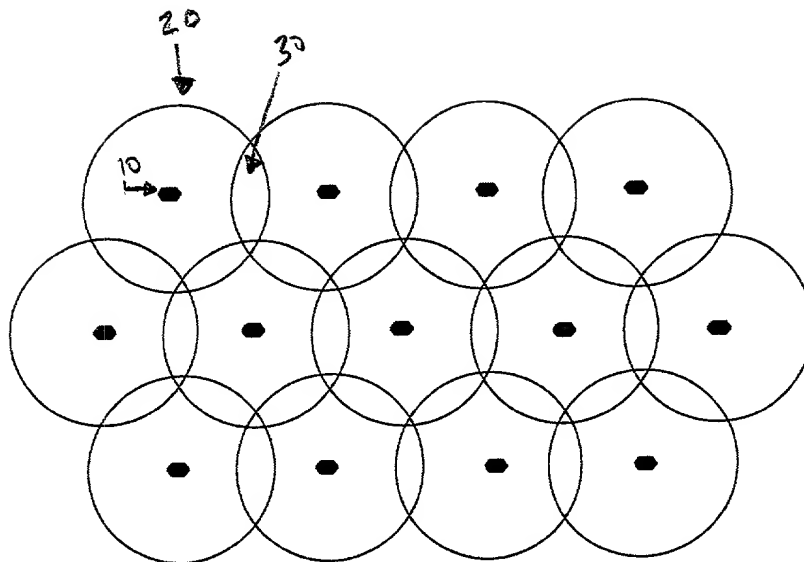


Fig 2 - Base Station Architecture
(showing overlapping coverage)

FIG. 2 is a diagram of a base station architecture showing overlapping coverage. The diagram shows a grid of 12 circles arranged in 3 rows and 4 columns. Each circle contains a small black dot at its center. The circles overlap horizontally and vertically, creating a honeycomb-like pattern. In the top-left circle, there are two additional labels: '20' with an arrow pointing to the top edge of the circle, and '30' with an arrow pointing to the center dot. Another arrow labeled '100' points towards the top-right corner of the entire grid.

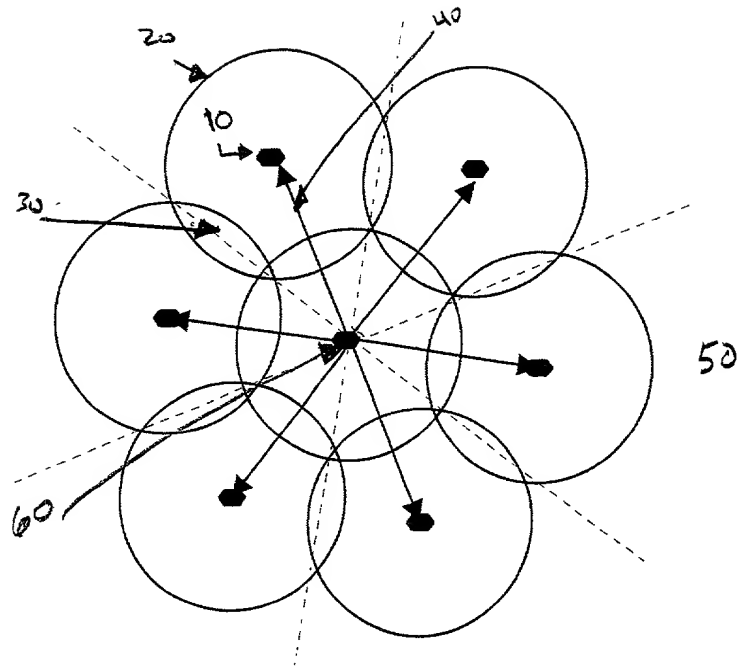


Fig 3 - Single Base Station (showing connectivity to six other Base Stations for handoff and channel co-ordination)

As a Mobile Unit passes from one Sector to another, the Base Station will initiate a "soft handoff" for the channel change

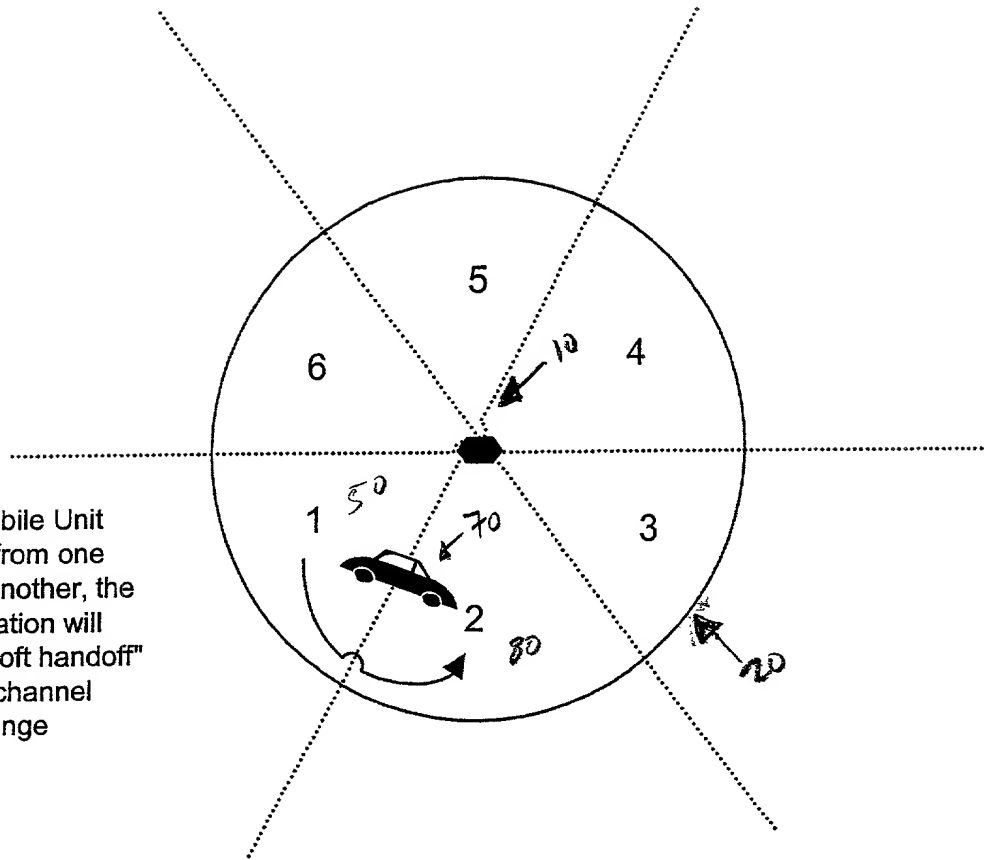


Fig 4 - Sectorization at UWB Base Station

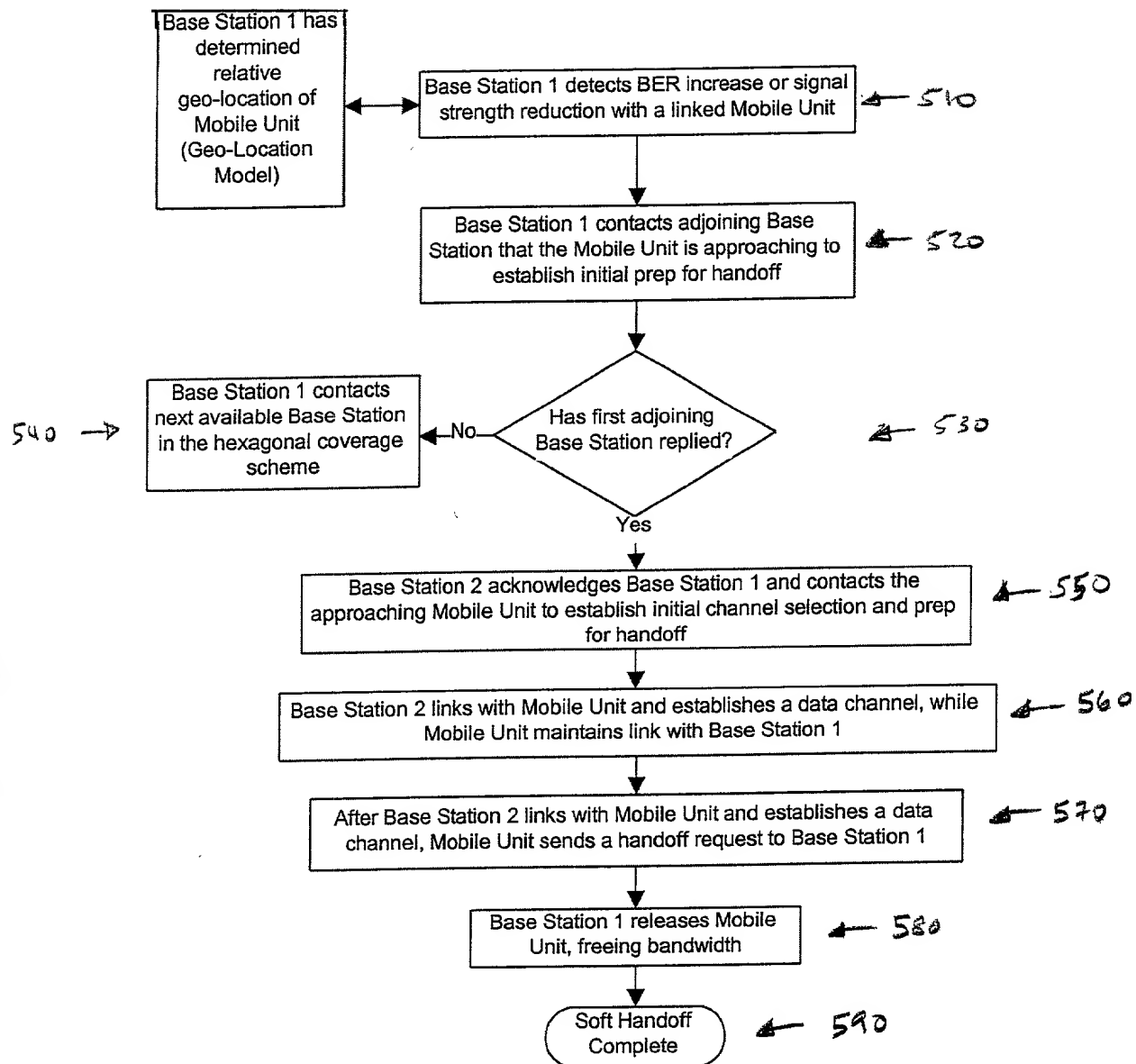


Fig 5 - Soft Handoff Scenario #1: Base Station to New Base Station to Mobile Unit

600

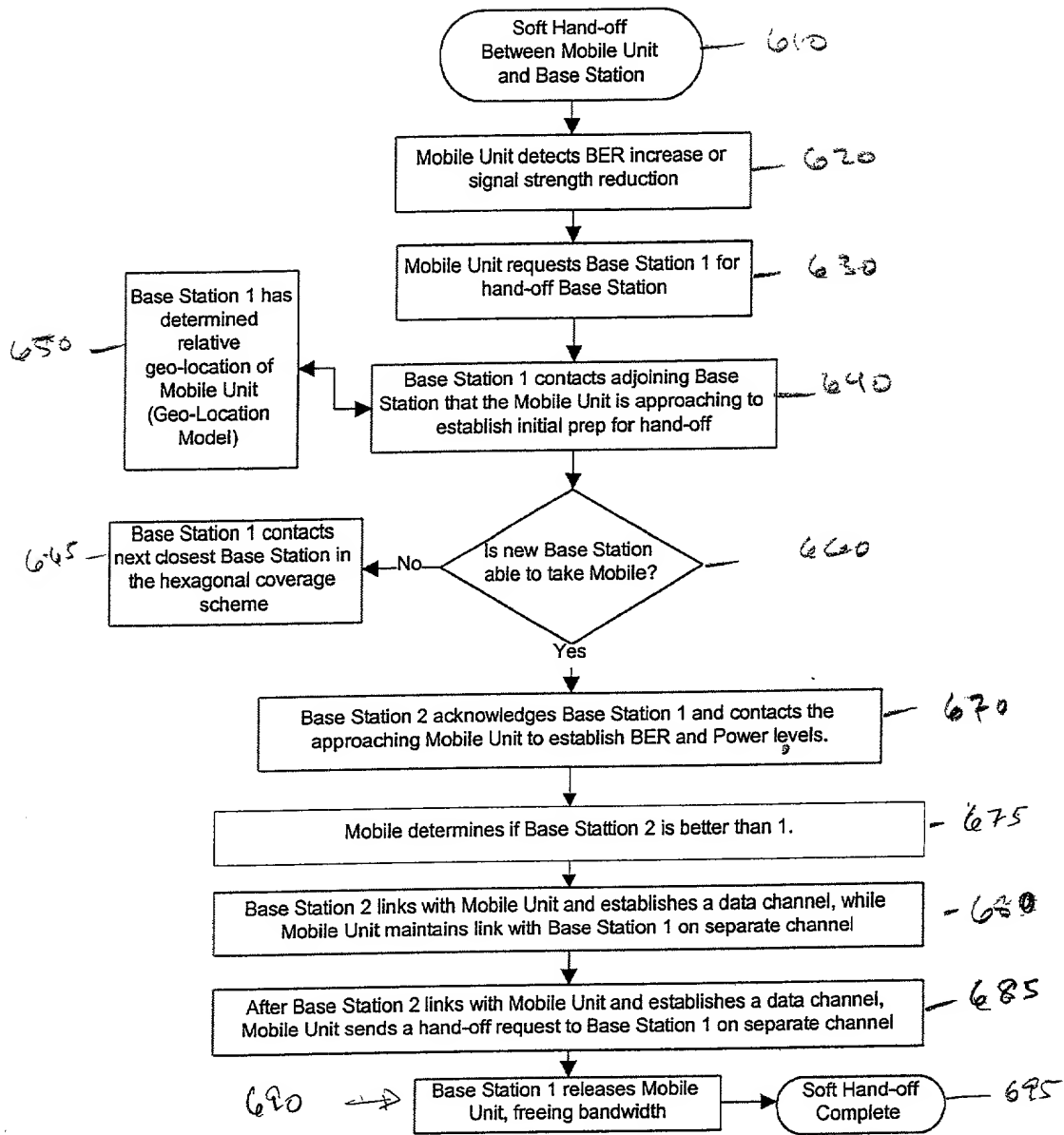


Fig 6 - Soft Hand-off Scenario #2: Mobile Unit to Base Station to New Base Station

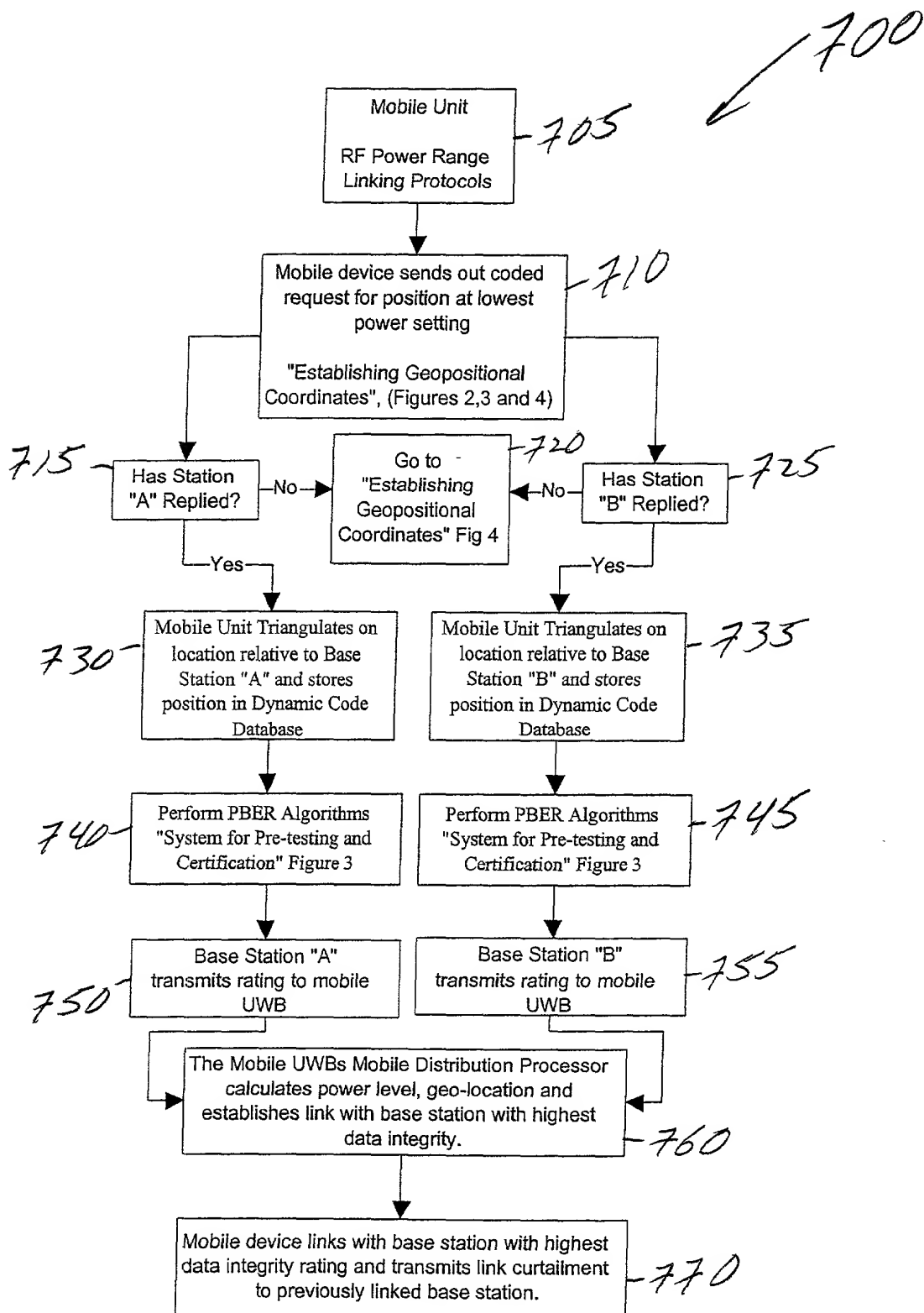
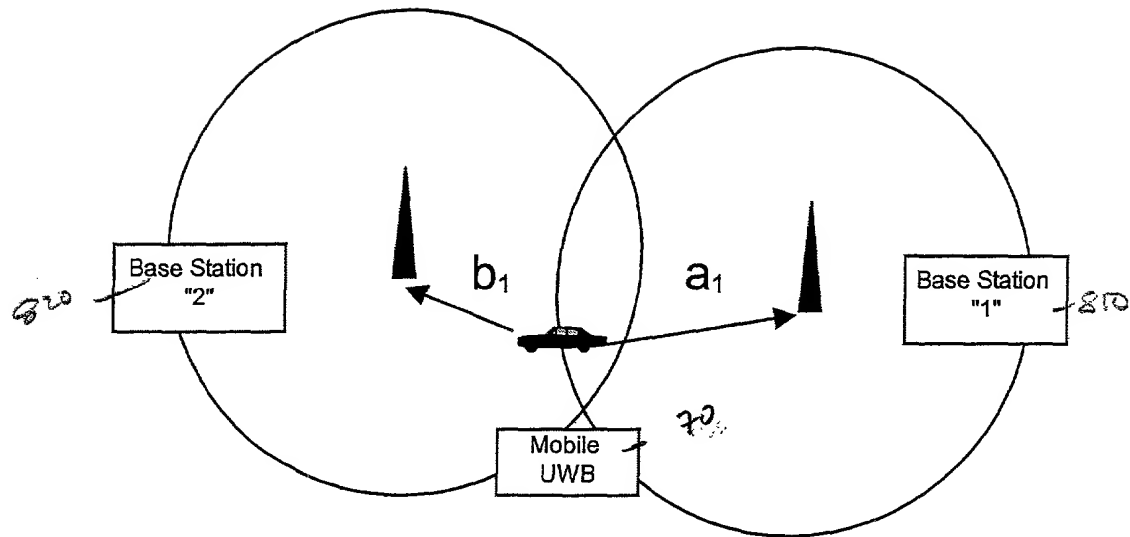


Fig 7 - Soft Hand-off Scenario #3: Performs Dynamic Power Range Linking



Mobile UWB is leaving range of Base Station "1" and is now within the range of Base Station "2"
 (Transmission distances are indicated by a_1 and b_1)

Fig 8 - Power-Range Linking Model for soft hand-off
 (Mobile leaving coverage of Base Station "2")

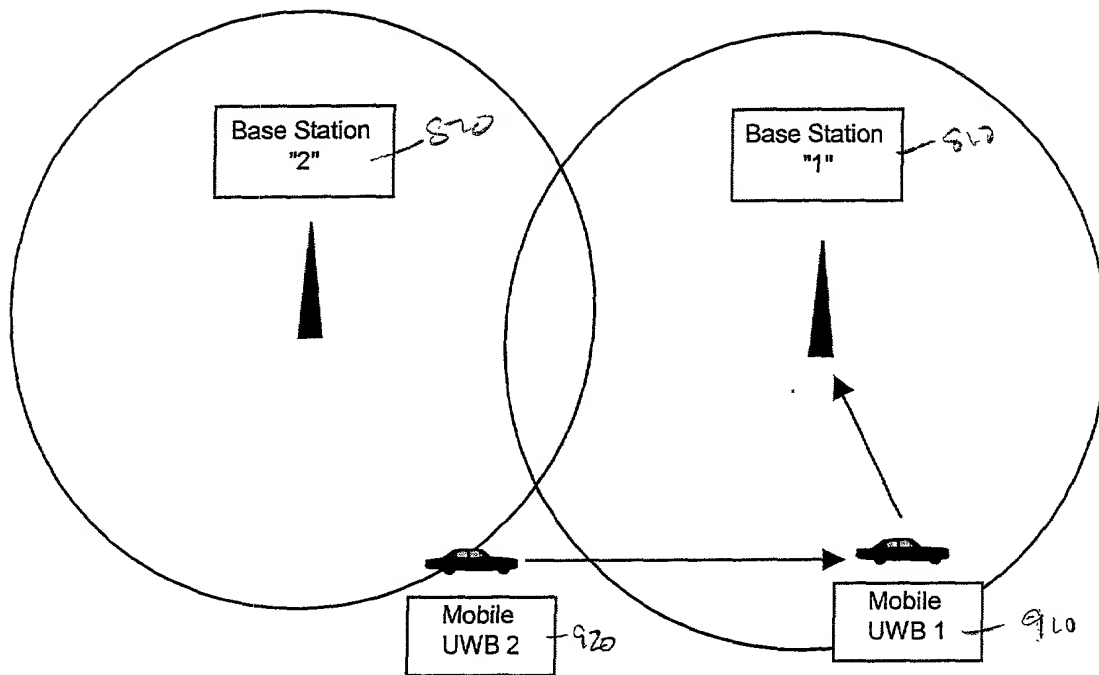


Fig 9 - Soft Hand-off Scenario #4 (Mobile Unit to Mobile Unit to Base Station, also providing emergency geo-locationing)

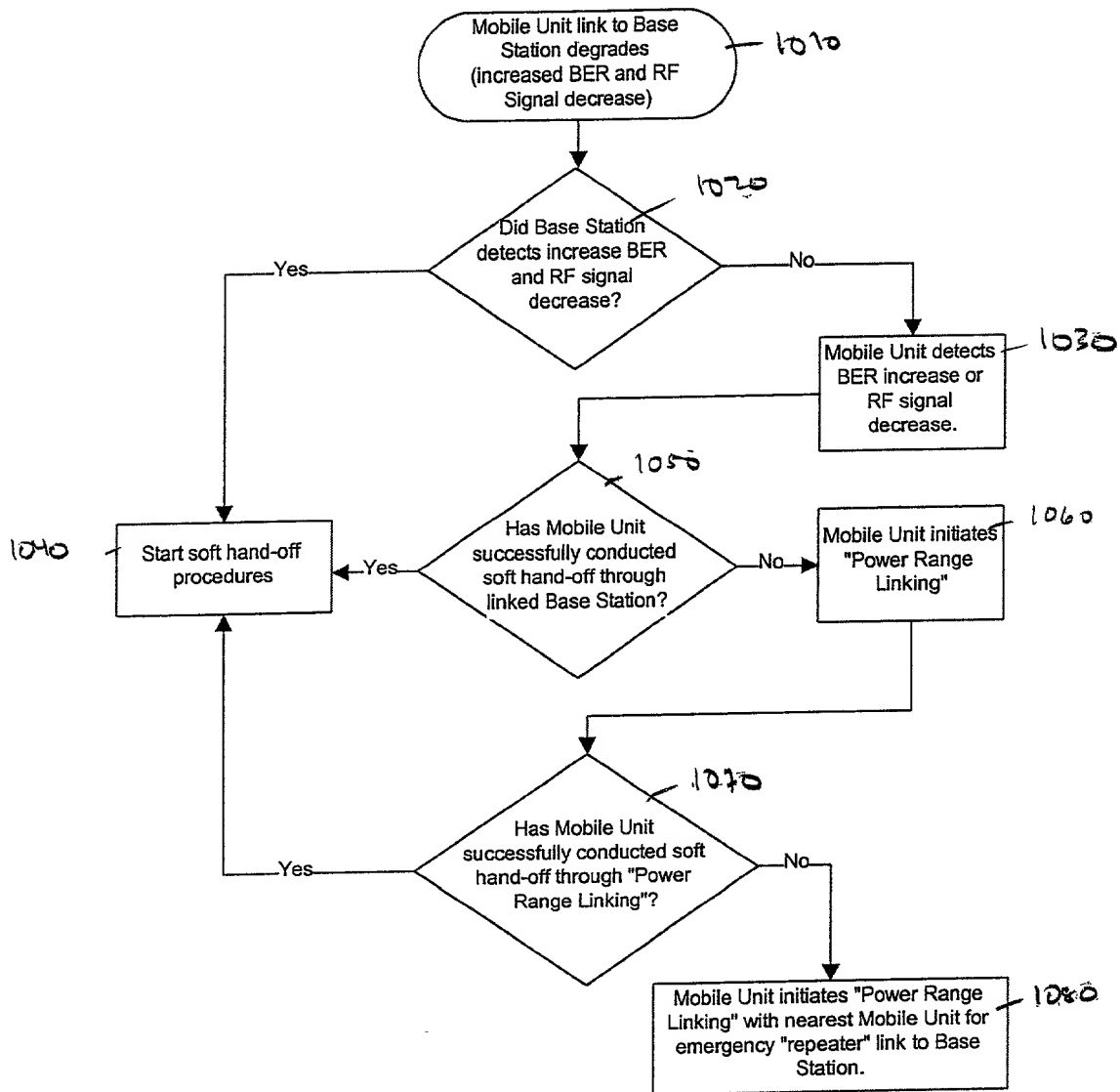


Fig 10 - Soft Hand-off procedures for Scenarios 1 through 4

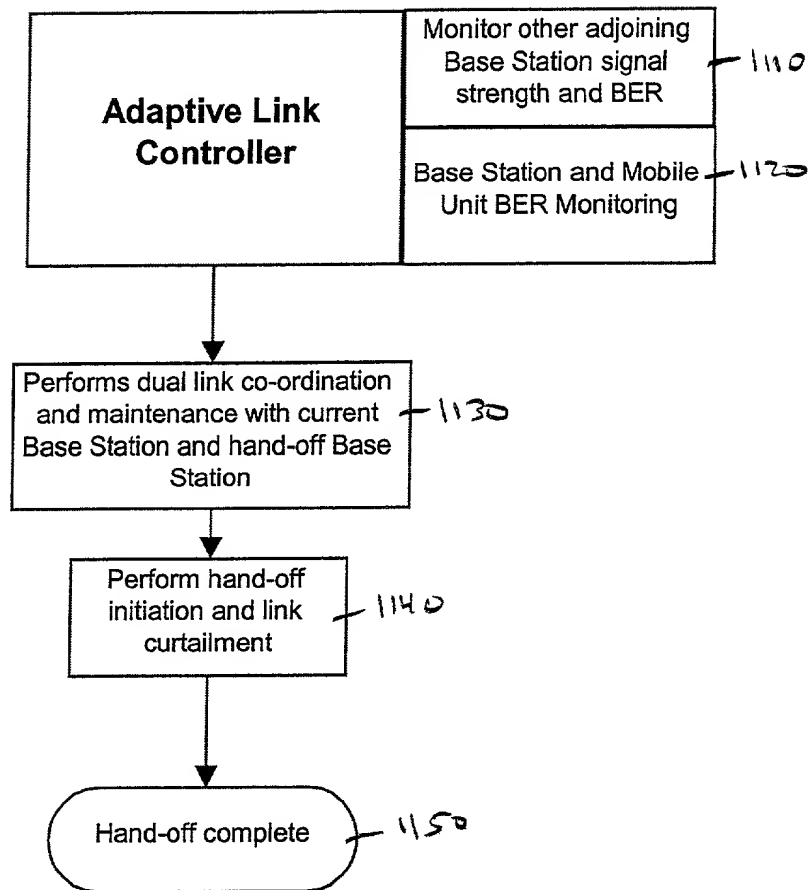


Fig 11 - Adaptive Link Controller